

SNAME BIOGRAPHY
Thomas Ray Hagner Jr.
“Tom”

Professional:

My father was a Naval Architect. He worked out of Owen Oakley's Preliminary Design Group on arrangements for all of the U.S. Navy submarines from 1952 until the mid-60s. He was the last Navy drafter to do fully inked drawings. (works of art they were !).

As a teenager, I lived in Chesapeake Bay. Fishing, sailing, crabbing, all of it. I flirted with becoming a forest ranger. I also told my dad “Gee, maybe I ought to do what you do” . Dad had watched years of Webbies fresh out of school marching up the government promotion ladder with remarkable speed. So he introduced me to Webb Institute. Dad celebrated my admission to Webb in 1962 by putting me in touch with SNAME.

I took full advantage of Webb's co-op program- working for a different company each winter and summer . I worked at Bethlehem Shipyards, Westinghouse, Moore-McCormack, U.S. Navy (in my Dad's office), Newport News Shipyard, and the U.S. Maritime Administration.

Graduating Webb with the Luchenbach Memorial Prize.in 1966, I took a job with the Marine Engineering Lab in Annapolis (living at home to help my parents through illnesses). We did shaft oil purity testing which I did not like . We also did anti-heat seeking missile vessel water spray cloaking systems which I thought was neat ! I was in a small boat watching a helicopter carrier go by. On command I pushed a button and the whole ship disappeared in spray. I was hooked !

Uncle Sam's Navy was kind enough to support a Master's degree program for me at MIT. Desperate to learn computers, I took applied heat transfer and metallurgy courses. I was an MIT graduate assistant, and I also worked a few hours a week for Gilbert Associates. For my thesis, I wrote and calibrated a mathematical model that predicted the downwind distribution from a anti-fallout nuclear washdown nozzle in the deck of an aircraft carrier. This was an early example of fluid systems simulation.

Receiving a master's degree from MIT in February 1969, I returned to Annapolis married to a lovely German lady whom I met in Boston. Fascinated by the U.S. Navy's Deep Submergence Rescue Vehicle (DSRV) Program, I was able to transfer to Lincoln Cathers' DSRV test range group. I did some preliminary work on the Deep Submergence Search Vehicle but alas that project was canceled.

A couple of professors at the University of Maryland were starting an ocean engineering program and decided my credentials were sufficient to retain me in 1970 as an Instructor of Mechanical and Ocean Engineering. At the same time, I matriculated on a PhD in theoretical fluid mechanics. I also worked part time for Tom Diamant at John J. McMullen Associates. There I met my lifelong friend John Malone. In the summer of 1971, I had a full immersion German experience as a shipfitter in a small German shipyard not far from Heidelberg'

I loved teaching, but did not want the “publish or perish” life of a tenured professor. My marriage ended partially due to the women’s liberation movement. In 1973 . I accompanied a lady friend to San Francisco intending to become a famous inventor and Corporation Starter. I called my company “ Applied Social Technology”. We did some interesting pro bono work, but basically my idea did not catch on. After a (too brief) period in Seattle, I crashed and burned back to Washington DC where fortunately I was taken back by McMullen Associates to work on Jack Abbott’s gas turbine projects. I completed the required coursework for my PhD, but could not identify a dissertation topic.

About that time, I got the chance to go deep ocean mining with Deepsea Ventures which was a consortium of Newport News Shipyard/Tenneco, U.S. Steel and Union Mines of Belgium. This was as complete an engineering experience as one could hope for. Essentially from scratch, we constructed a prototype system to recover manganese nodules from the deep Pacific. Essentially we built a 3 mile long vacuum cleaner. I was responsible for the pipe design, the geodesic wind screen, and dredgehead wind tunnel tests among many other tasks. During this adventure, I met my wonderful wife Andrea, and we embarked on a life that took us to exciting places and brought us our outstanding children Catherine, John, and Andrew.

We successfully mined the nodules, but alas they were not able to reduce the cost of separating the metals below even twice the value. Also, the cost of metals did not rise as expected.

I took a job at Arctec in Columbia Maryland doing ice model basin testing. That not working out, I returned to Deepsea Ventures for additional pipestrung structural response analysis.

About this time (1979), Dennis Banta, the president of Zigler (now LEEVAC) Shipyards in south-central Louisiana, looked at my CV and decided I would make a good Engineering Manager, ivory tower and all. He was right! Together we turned a mudbank yard into a modern construction facility. We bought numerical control (NC) steel cutting machines, and I wrote our own NC language tailored to the people that we had in the yard. At the same time, we had man=hour and material costs well below budget for a range of yard vessels. I loved this job and probably would've stayed there except for the offshore market crash in 1984 and concerns about the education of my growing family.

At this point, Arco invited me to Long Beach to work in their Technical Services group. I performed naval architecture and marine engineering tasks for the tanker fleet and had a special responsibility for developing the design of a year-round icebreaking LNG carrier for the North Slope.

In 1986, Amoco Marine was looking for a manager of Technical Services. A headhunter brought me to their attention, and soon I was on my way to Chicago. Very soon we contracted for the first of six tankers that we purchased from Mitsubishi Heavy Industries in Nagasaki Japan. I was the Technical Manager for these contracts with responsibility for the specifications and drawings. I gathered comments from the Operations group and our consultants, and made something like 25 trips to Japan to negotiate drawing and cost changes. We retained Naresh Maniar and Rosenblatt plus George Mara and Roland Marine . I am very pleased to count these gentlemen among my long term friendships. I was also responsible for oil spill salvage response

working extensively with Herbert Engineering. I also spent time lobbying in Washington D.C. in the run-up to OPA-90. I was on Sean Connaughton's API Committee and I met Dick Thorpe even though he was on the other side of the issue with the Shipbuilders Association. I was on the working group and the steering committee for the Tanker Structure Co-operative Forum. I had the great honor of being on the official U.S. Delegation at the Thirtieth Meeting of IMO MEPC (1990). In 1992, we were well underway on the first oil company double hull VLCC when Amoco decided to sell their fleet. It looked like my VLCC was going to Vela/Saudi Aramco, so I called up my friend Dick Pomfret and said since he is taking my ship, would he like to take me too?

So it came to pass that I and my family landed in Dhahran Saudi Arabia sight unseen to begin work. (The ship ended up being sold to the Greeks.) Vela was more than halfway through a 15 vessel construction program so there was a lot of support engineering to be done. I picked up the oil spill salvage role and became part of a Saudi "good neighbor" roadshow that put on extensive oil spill drills in London, France, New Orleans, and South Africa. I also was Vela's representative on the Oil Companies International Marine Forum. My day-to-day job was running the guarantee claims section for the vast construction project. Every warranty claim, breakdown, or question that arose from the sailors or operators was entered into the database and tracked back through the responsible shipyards in Japan, Korea, and Denmark. We had more than 15,000 items. There were cultural advantages and wonderful opportunities for world travel. My children received excellent educations.

Still, five years in Saudi was sufficient. A quick turnaround trip to the SNAME annual meeting in New York put me in touch with my old friend headhunter Mike Keough. Soon I met Steve Van Dyck and began work as Chief Naval Architect at Maritrans. I started officially in December of 1997 just a few weeks before we signed the first contract for the first double hull super barge from single to double hull. We did nine of these conversions over the years and I turned out to be the patent holder. The vessels were very successful, and we were pleased when ABS officially rated our vessels "as good as new". I did a large range of things during my years at Maritrans (and OSG after the merger) I was VP operations for awhile, but I also I was pulled over into construction management plus served as the resident expert on structural and hydrodynamic analysis. I represented Maritrans/OSG on the combined NA & ME technical committees at ABS. I continued my oil spill salvage responsibilities. I retired owing to disability in 2008.

I have enjoyed all things SNAME. I went to most of the annual meetings/expos. (I am very grateful to my various employers for supporting my attendance). I delivered papers in 1990 and 2007. I am on the Public Policy Committee, and recently served two terms on the Nominating Committee. I was made a Fellow in 2005. I was on the Executive Committee of the Philadelphia Section and was Vice Chairman of the Central region of the Southeast Section. I put on several SNAME meetings in Tampa, always feeling that the port had all of the ingredients to sustain a section on our own. I ended up putting my energy into the Tampa Propeller Club, serving on the Executive Committee, being President, and named "Member of the Year" in 2008 by the Tampa club and the Southeast Region.

In retirement, I have done some consulting, but mostly rested, enjoying our waterfront home in southern Virginia, and I have had the wonderful experience of grandchildren. Chess, fishing, and crabbing are still important activities. I am feeling like becoming more active. Among other plans, I want to help the Mariner's Museum in Newport News capture the deep ocean mining adventure.

I would like to thank SNAME for helping us celebrate our 50 years as Members.

Tom Hagner

Poquoson Virginia

2012